Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (original) A system for fault determination and location by time domain reflectometry in a network having a plurality of optic fibre lines to be tested, said system having a coupler with one input and a plurality of outputs, each of said outputs being connected to one line of said plurality of lines to be tested, said system comprising:

a means for separating each of said lines to be tested into two channels;

a first channel to receive a first test impulse corresponds to a first test; and

a second channel to receive a second test impulse corresponding to a second test, the length of said second channel being greater than the length of said first channel by a predetermined overlength, each of said overlengths being different for each of said lines.

2. (original) The system according to claim 1, wherein said overlength is an overlength of optic fibre.

3. (original) The system according to claim 1, wherein said means for separating each of said lines into two channels is a demultiplexer having at least two outputs.

4. (original) The system according to claim 3, wherein each of said two

channels are regrouped on said line from which they are derived by a multiplexer having at least two inputs.

5. (original) The system according to claim 3, wherein one of said two outputs of said demultiplexer is connected to a saturable absorber device.

6. (original) The system according to claim 1, wherein said means for separating each of said lines into two channels is a switch.

7. (original) The system according to claim 1, wherein said means for separating each of said lines into two channels is a coupler having at least two outputs.

8. (original) The system according to claim 7, wherein each of said two channels are regrouped on said line from which they are derived by a coupler having at least two inputs.

9. (currently amended) A method for fault determination and location by optical time-domain reflectometry in a network having a plurality of optic fibre lines ~~using a system according to claim 1, said method comprising the steps of:~~ to be tested, wherein the system has a coupler with one input and a plurality of outputs, each of the outputs being connected to one line of the plurality of lines to be tested, said method comprising the steps of:

separating each of said lines to be tested into two channels;

sending a first impulse at a first wavelength into said first channel; ~~and~~

detecting a fault; and

~~if a fault is detected,~~ sending a second impulse at a second wavelength into said second channel corresponding to a second test, wherein the length of the second channel is greater than the length of said first channel by a predetermined overlength, and wherein each of said lines has different overlengths.

10. (original) The method for fault determination and location according to claim 9, wherein said first and second test wavelengths are different.

11. (currently amended) The method as claimed in claim 9, further comprising the step of sending an impulse ~~for fault determination and location by time-domain reflectometry in a network having a plurality of optic fibre lines using a system according to claim 1, said method comprising a step in which an impulse is sent~~ at a predetermined wavelength, said impulse dividing itself into a first impulse at said predetermined wavelength in said first channel and into a second impulse at said predetermined wavelength in said second channel.

12. (currently amended) The method ~~for fault determination and location by time-domain reflectometry in a network having a plurality of optic fibre lines using a system according to claim 5~~ as claimed in claim 9, wherein the step of separating each of said lines to be tested into two channels is performed using a demultiplexer with one of

the two outputs of the demultiplexer being coupled to a saturable absorber device, said method further comprising the steps of:

sending a first impulse at a predetermined wavelength, the power of said first impulse being such that said saturable absorber device is in a blocked state; and

if a fault is detected, sending a second impulse at said predetermined wavelength, the power of said second impulse being such that said saturable absorber device is in a passing state.

13. (currently amended) An optical network, said network comprising:

an optical time-domain reflectometer device for sending and analysing a test impulse;

a coupler having at least one input and at least two outputs, the input of said coupler being adapted to receive an impulse from said optical reflectometer device;

at least two systems ~~according to claim 8~~, wherein each system has a means for separating each of said lines to be tested into two channels, a first channel to receive a first test impulse corresponds to a first test, and a second channel to receive a second test impulse corresponding to a second test, the length of said second channel being greater than the length of said first channel by a predetermined overlength, each of said overlengths being different for each of said lines, each of said two systems having its respective input connected to an output of said coupler; and

a plurality of couplers, called subscriber couplers, each of the outputs of said two systems being connected to an input of one of said subscriber couplers and each output of said subscriber couplers being connected to a wavelength filtering device, the non-

filtered wavelength being different for each output of one same subscriber coupler.

14. (original) The optical network according to claim 13, wherein

said coupler has one input and two outputs;

each of two fault detection systems has one input and four outputs, and

each of said subscriber couplers has one input and four outputs.

15. (original) A method for fault determination and location by time-domain refletometry in a network of claim 14, said method comprising the step of successive launching of four impulses at four different lengths, said four wavelengths respectively corresponding to wavelengths not filtered by said wavelength filtering devices.